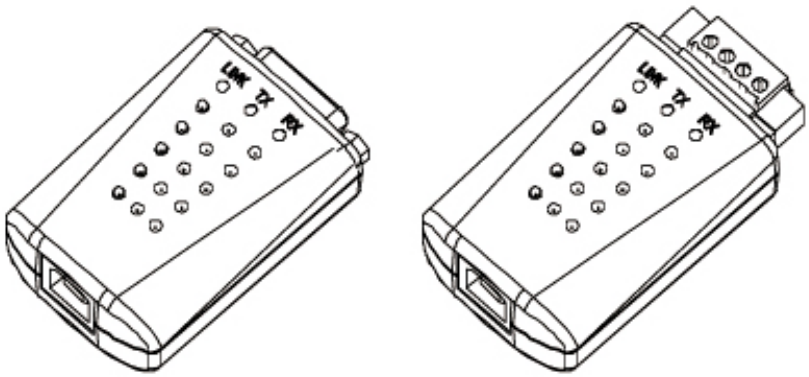

USB-RS232 Converter
USB-RS422/485 Converter

User's Manual

(M 981 224/ 02A)

(c) CIRCUTOR S.A.

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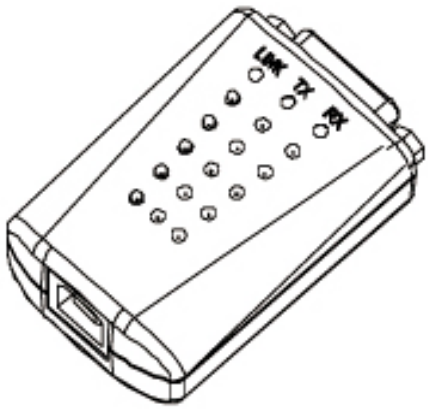
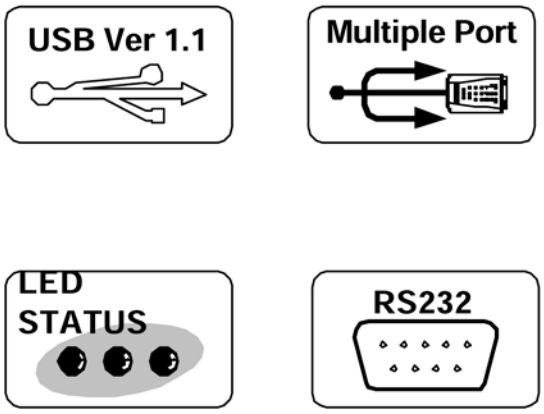
FCC COMPLIANCE STATEMENT

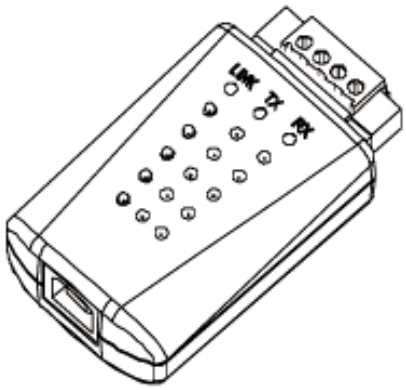
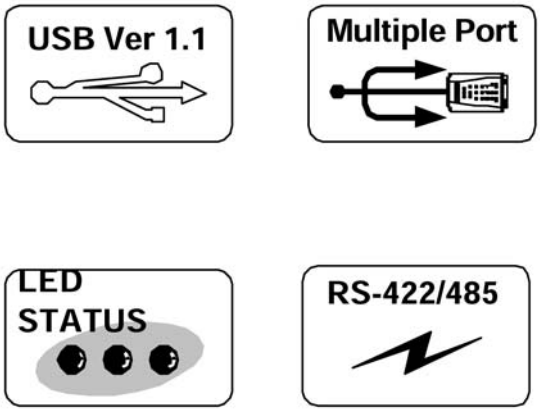
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

1.- Information

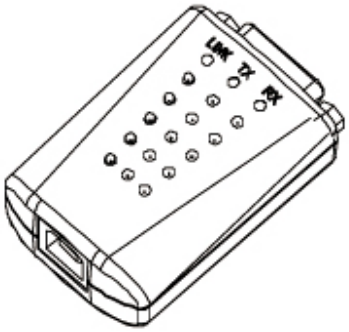
- USB-RS232 Converter

MACHINE TYPE	FUNCTION
 USB-RS232	

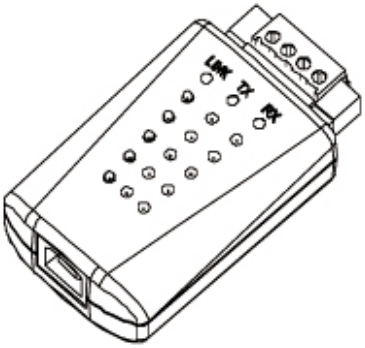
- USB-RS422/485 Converter

MACHINE TYPE	FUNCTION
 USB-RS422/485	

- Standard Package



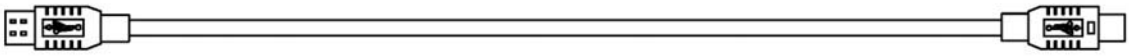
Main Unit
(USB-RS232)



Main Unit
(USB-RS422/485)

Driver disk

User's manual in PDF



USB Cable

2.- Installation

- Driver software installation

1. **Connect USB-RS232/422/485 converter into the USB port of your computer first.**

2. **Under Windows 98/2000/Me/XP, put disk drivers into the floppy disk driver, it will automatically install the USB-RS232/422/485 driver software into your computer by following the steps as below:**

3. **This wizard searches for new drivers for USB Device**

Add New Hardware Wizard
This wizard searches for new drivers for:
USB Device
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

4. **What do you want Windows to do?**

Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

5. **Select Searching locations for new driver**

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
A:\Win98_ME
Browse...
< Back
Next >
Cancel

6. **Windows is now ready to install the best driver**

Add New Hardware Wizard
Windows driver file search for the device:
CIRCUTOR USB-RS232/422/485
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
A:\WIN98_ME\SERSPL.INF
< Back
Next >
Cancel

7. **Windows has finished installing the software**

8. Make sure if the driver software installation is finished

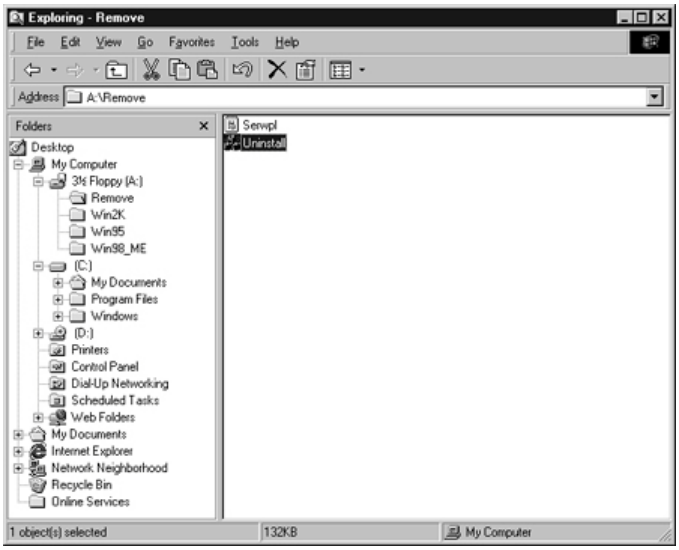
Connect converter into the USB port of the computer and then Click "Start" ->"Settings" -> "Control Panel" -> "System" ->"Device Manager" to see if there are "CIRCUTOR USB-RS232/422/485 (COMX)" at Ports and "CIRCUTOR USB-RS232/422/485" at Universal Serial Bus controllers.

3.- Remove driver software

- How to remove USB-RS232/422/485 driver software from your computer

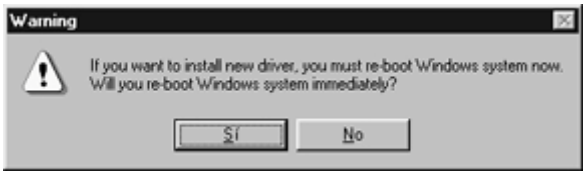
1. **Put driver disk into the floppy disk driver of the computer and then find and execute Uninstall.exe by following the steps as below:**

2. **Execute Uninstall.exe**



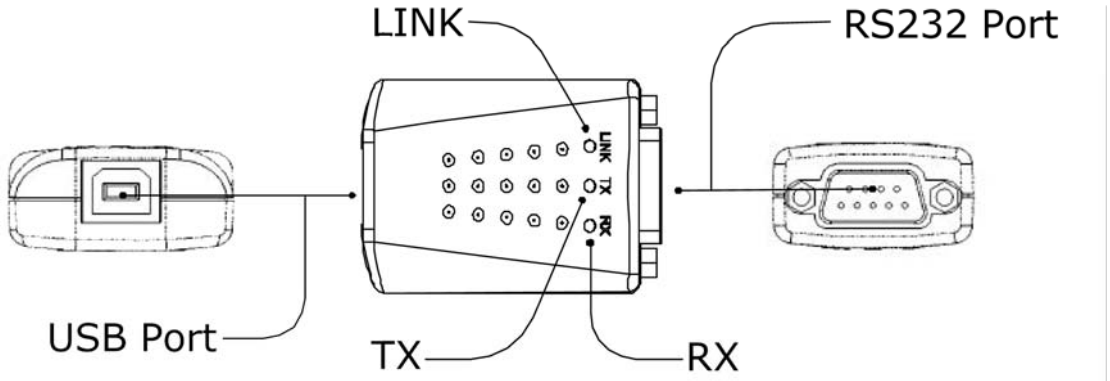
3. **Confirm to execute Remove program**

4. **Re-boot the Computer after remove program is done**

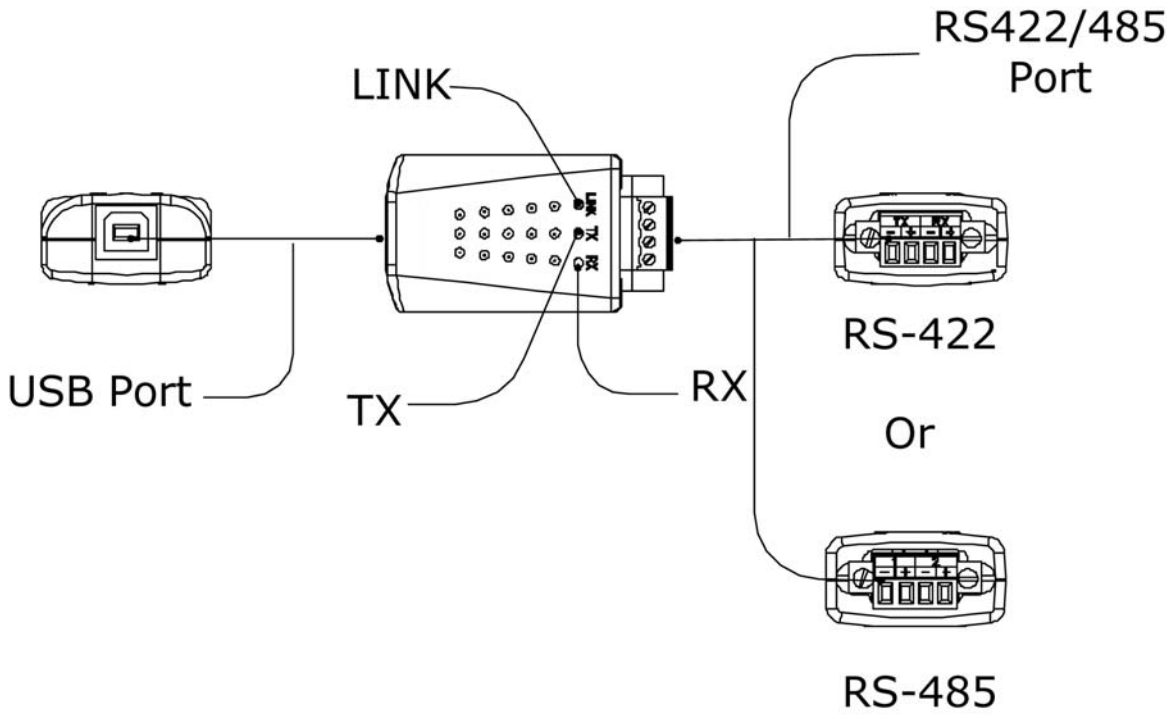

Warning
If you want to install new driver, you must re-boot Windows system now.
Will you re-boot Windows system immediately?
Sí
No

4.- Technical and operational description

- **Front panel of USB-RS232**



- **Front panel of USB-RS422/485**



Remark: One USB-RS485 converter can be used for connecting two unit of RS-485 devices.

▪ Operation of USB-RS232/422/485 converters

✓ RS232/422/485: **Connecting with the terminal device, which is equipped with RS-232/422/485 interface.**

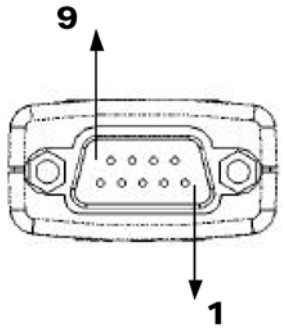
✓ USB: **Connecting with the computer USB port or Hub.**

✓ LINK: **LINK LED turns on when the USB-RS232/422/485 unit is ready for use.**

✓ TX: **TX LED turns on when the data is sending from USB port to RS-232/422/485 device.**

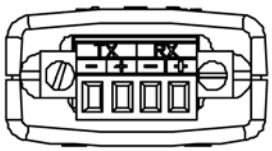
✓ RX: **RX LED turns on when the data is sending from RS-232/422/485 device to USB port.**

▪ RS-232 PIN FUNCTION



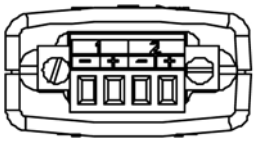
PIN No.	I/O	DESCRIPTION
1	**I**	**Data carrier detect**
2	**I**	**Received data**
3	**O**	**Transmitted data**
4	**O**	**Data terminal ready**
5	**X**	**Signal ground**
6	**I**	**Data carrier**
7	**O**	**Request to send**
8	**I**	**Clear to send**
9	**I**	**Positive dc TEST**

▪ RS-422 PIN FUNCTION



PIN		DESCRIPTION
Tx	**-**	**RS-422 Tx -**
	+	**RS-422 Tx +**
Rx	**-**	**RS-422 Rx -**
	+	**RS-422 Rx +**

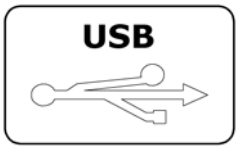
▪ RS-485 PIN FUNCTION



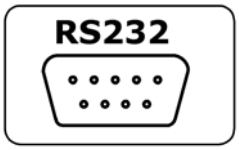
PIN	DESCRIPTION

1	-	RS-485 -
	+	RS-485 +
2	-	RS-485 -
	+	RS-485 +

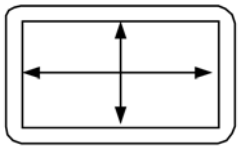
5.- Specifications



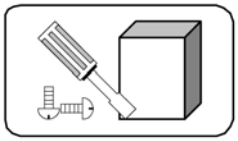
USB Interface
Full compliance with the USB specification v1.1



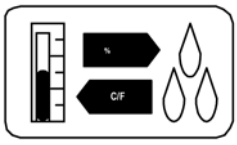
RS-232 Interface
RS-232, Full, 8N1, max 120 Kbps



Dimensions
D 18.8 x W 35 x H 56 mm



Mounting
Any surface



Environment
Operating temperature: 0 ~ 55 ºC
Storage temperature: -10 ~ 55 ºC
Humidity: 10% ~ 90% relative

6.- Notes

- **Do not disconnect the converter during running your application program to avoid any unexpected problem.**

- **USB-RS232/422/485 driver software provides maximum 8 converters to be used for multiple device communication. The addresses of the multiple devices are according to the serial port addresses of the PC or the addresses of the port HUB USB where the devices are connected.**

- **The converter does not work with DOS system. Only Win98/2000/Me support USB.**

- **You must connect the converter into the USB port of your computer before you start driver software installation.**

- **After the converter is connected into USB port of the computer which is with the driver software installed, LINK LED will turn on to be ready for use, otherwise unplug the converter and try again after 5 seconds or longer.**